



European Unior European Regional Development Fund

# **Baltic Loop**

# People and freight moving – examples from Estonia

Final Conference of Baltic Loop Project / ZOOM, Date [16th of June 2021]



Baltic Loop

Kaarel Kose Union of Harju County Municipalities

### **Baltic Loop connections**



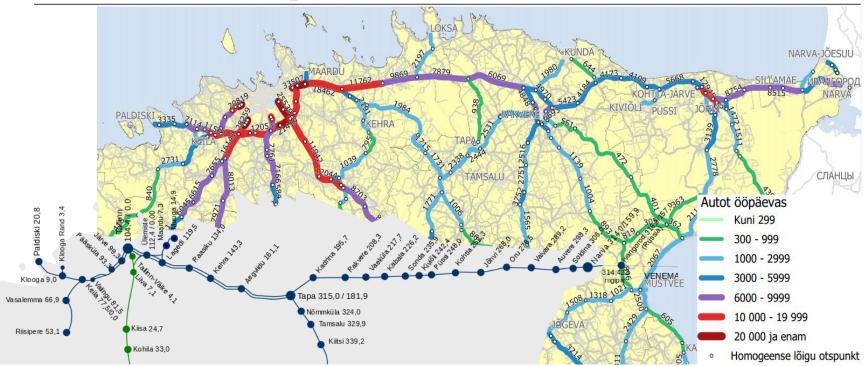


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### **Baltic Loop connections**





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### Strategic goals



HARJU COUNTY DEVELOPMENT STRATEGY 2035+

- STRATEGIC GOAL No 3: Fast, convenient and environmentally friendly connections with the world and the rest of Estonia as well as within the county.
  - Tallinn Bypass Railway, to remove dangerous goods and cargo flows passing through the centre of Tallinn from the Kopli cargo station;
  - Reconstruction of Tallinn-Paldiski (main road no. 8) and Tallinn ring road (main highway no. 11) to increase traffic safety and capacity
  - Indicator: domestic and international passenger connections (travel time, number of connections) Tallinn–Narva ca 1 h

#### NATIONAL TRANSPORT AND MOBILITY DEVELOPMENT PLAN 2021-2035

- The main focus of the development plan is to reduce the environmental footprint of transport means and systems, ie a policy for the development of sustainable transport to help achieve the climate goals for 2030 and 2050.
  - a special plan for the Tallinn ring railway must be initiated in order to find out the feasibility of the project.
  - smart and safe roads in three main directions (Tallinn-Tartu, Tallinn-Narva, Tallinn-Pärnu) in order to reduce the time-space distances of cities and increase traffic safety (5G readiness etc).
  - increase speed on the railways to reduce time-space distances and improve safety; shift both passenger and freight traffic from road to rail and to increase its positive impact on the environment through more frequent use of rail (Tallinn-Narva connection 2035 1h45min)

GENERAL PRINCIPLES OF CLIMATE POLICY UNTIL 2050 / NEC DIRECTIVE / ETC.

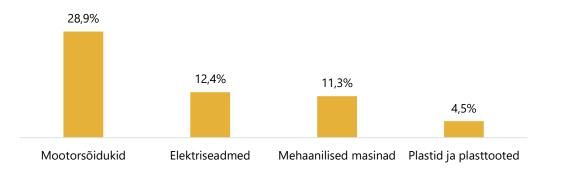


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### Import / Export - Sweden

#### ESTONIAN IMPORT FROM SWEDEN (2020)



#### IMPORTS AND EXPORTS OF GOODS TO SWEDEN:

According to Statistics Estonia, in 2020 Estonia imported mainly motor vehicles (28.9%), electrical equipment (12.4%), mechanical machinery (11.3%) and plastic and plastic products (4.47%) from Sweden (see Figure 4). . In 2019, Estonia mainly imported motor vehicles, electrical equipment (22.2%), mechanical machinery (10.3%) and plastic and plastic products (3.78%) from Sweden. In 2020, Estonia exported electrical equipment to Sweden (21.6%), followed by wood and wood products (16.8%), furniture, lighting and prefabricated buildings (15.7%), and iron and steel products (5.67%). In 2019, Estonia exported mainly wood and wood products (18%), electrical equipment (17.5%), furniture, lighting and prefabricated buildings (17.2%) and iron and steel products (5.8%) to Sweden.

**Baltic Loop** 

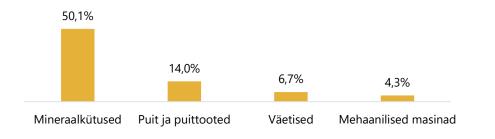


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## Import / Export - Russia



### ESTONIAN IMPORT FROM RUSSIA (2020)



#### IMPORTS AND EXPORTS OF GOODS TO RUSSIA: In 2020,

Estonia imported mainly mineral fuels (50.1%), wood and wood products (14%), fertilizers (6.7%) and mechanical machinery (4.3%) from Russia. In 2019, the main import items were mineral fuels (50.7%), wood and wood products (12.3%), fertilizers (9.2%) and iron and steel (4.6%).In 2020, Estonia exported mechanical machinery (29.7%), electrical equipment (16%), park and dye extracts, paints, varnishes and mastics (11.8%) and iron and steel products (5.4%) to Russia. In 2019, exports were mainly of mechanical machinery (30.8%), tanning and dyeing extracts, paints, varnishes and mastics (13.3%), electrical equipment (10.5%) and plastics and plastic products (4.8%).



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### Ports



#### Estonian ports cargo volume, 2019—2020, th. tonnes

| PORT                | 2019   | 2020   |
|---------------------|--------|--------|
| Port of Tallinn     | 19 930 | 21 340 |
| Old City Harbour    | 3 822  | 3 976  |
| Muuga               | 11 684 | 13 680 |
| Paljassaare         | 64     | 68     |
| Paldiski South Port | 4 350  | 3 586  |
| Port of Sillamäe    | 10 490 | 9 488  |
| Paldiski North Port | 1 402  | 1 098  |
| Port of Kunda       | 1 476  | 1 554  |

Source: Estonian Ports Association, Port of Tallinn

- 40 million passengers annually in the eastern Baltic Sea, making it the busiest area for international passenger traffic in the Baltic Sea.
- Optimal distance for large-scale passenger ship traffic between the capitals, promotes heavy shipping traffic between Estonia, Finland and Sweden.
- The cargo volume of Estonian ports was 39 million tons in 2020, of which the Port of Tallinn was 55%, Sillamäe 24%, Paldiski North Harbor with 6%, Pärnu with 5% and Kunda Harbor with 4%.



### Industry



#### The most important industrial parks in Harju County, Lääne-Viru County and Ida-Viru County

| Harju County (excl. Tallinn)* | Lääne-Viru County             | Ida-Viru County                                   |
|-------------------------------|-------------------------------|---|
| Keila Tööstuslinnak           | Ebavere tööstusala            | Narva tööstuspark                                 |
| Tööstuse Äripark              | Tapa tööstusala               | Jõhvi Äripark                                     |
| Paldiski Tehnopark            | Tamsalu tööstusala            | Kohtla-Järve Tööstuspark                          |
| Kiiu Tehnopark                | Rakvere lennuvälja tööstusala | Kiviõli Äripark                                   |
|                               | Kunda sadama tööstusala       | Nakro tööstuspark                                 |
|                               | Roodevälja tootmisala         | Narva Äripark                                     |
|                               | Aluvere tööstusala            | Kreenholmi tööstusala                             |
|                               |                               | Eesti Energia Narva<br>Elektrijaamade Tööstuspark |
|                               |                               | Sillamäe vabatsoon                                |

In Estonia, the share of industry in 2017 was 21% of the gross value added and 21% of employment, 125 thousand employees were employed in manufacturing.

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Territorially, industry in Estonia is more concentrated in Tallinn and other parts of Harju County, where in 2017 46% of manufacturing companies with 20 or more employees were located.

Source: OÜ Geomedia



### Main stakeholders





Domestic passenger transport by rail is organized by AS Eesti Liinirongid (Elron), goods are transported by rail mainly by AS Operail. Railway is administred by Estonian Railways Ltd (AS Eesti Raudtee) and Rail Baltica developments are carried out by RB Rail AS and Rail Baltic Estonia OÜ.

Freight transport by rail is mainly performed by AS Operail

- 8.37 million passengers by rail in 2019
- 21.3 million tons freight by rail in 2019

Main on-land passenger operators by volume are Tallinna Linnatranspordi AS, which provides bus, tram and trolley traffic services in Tallinn. Lux Express Estonia AS provides national bus services and there are several regional bus service providers.

The leading logistics companies in freight transport are AS Schenker, DSV Estonia AS and DHL Express Estonia AS.

- In 2019, a total of 161.8 million passengers by bus
- 2019, domestic and international road freight transport totaled 28.3 million tons



The most important providers of port services are AS Tallinna Sadam, AS Sillamäe Sadam. In Paldiski, maritime transport in the Estonian-Swedish direction is provided by Tallink (Paldiski South Harbor) and the Estonian branch of DFDS A / S (Paldiski North Harbor)

The largest company in the entire transport sector is AS Tallink Grupp

- In 2019, 10.7 million passengers moved through the ports
- In 2019, freight transport through ports totaled 37.6 million tons





### **Threats / Bottlenecks**



| Low capacity of Narva border crossing                   | There are long waiting times at the Narva border checkpoint. Based on past experience, it can be said that the actual capacity to cross the border is significantly higher than what is realized today. Thus, the problem is not only infrastructure (Narva bridge etc), but also a lack of political will to speed up border crossings.   |
|---|--|
| Road infrastructure needs<br>upgrading                  | The road sections in the corridor have partly low speeds and narrow road sections (eg from Paldiski harbour in the direction of Keila, Jõhvi-Haljala, Jõhvi-Narva), at the same time the traffic is heavy. As a result, safety problems arise and delivery times are extended. High capacity vehicles (HCV) are not allowed.   |
| The existing railway infrastructure is not sufficient   | Freight and passenger transport takes place on the same track gauge, which is why the departures and bypassings of other trains must be taken into account when planning transport. The growth of passenger transport is creating additional bottlenecks in freight transport. As freight is transported at night and through the city of Tallinn, safety and noise problems are growing obstacle. There is no fast connection between Tallinn and Narva. There is no Tallinn bypass railway. Existing rolling stock inadequacy. |
| Impossibility to increase capacity in some of the ports | As cargo flows increase (10-15%), there is not enough space for certain departures in the ports (Paldiski North Harbor) or there is no space in the ports to expand their area (Muuga and Tallinn Old Port).   |
| Need to speed up the digitalisation                     | The paper based documentation/bureaucracy is already an obstacle today, but it would deepen as volumes increase. Investments in IT systems are made separately, but there is no single integrated system. In addition, the backwardness of trading partners (Russia, the Baltic States) may be an obstacle.  |
| Alternative corridors                                   | The northern (Finnish) corridors have advantages on further developed infrastructure, especially border crossing capacity (no political restrains).  |



### **Strengths / Opportunities**



| Geographically advantageous<br>location                           | There is no alternative to a more direct route between destinations (eg domestic passenger transport; eg movement from Germany to Russia along the Baltic Sea vs. rail / road) without losing time. The ports of Paldiski are ice-free (compared to, for example, the port of St. Petersburg).  |
|---|---|
| Alternatives within the corridor                                  | There are a number of ports along the coast (Paldiski, Kunda, Muuga, Sillamäe, etc.) where the necessary infrastructure is available to load and unload goods. Thus, it is possible to to use other ports when one port is exceeding capacity or unavailable.   |
| Harju transport hub   | A hub will be created for Tallinn and Harju County (part of the TEN-T core network, Rail Baltic, possible tunnel). High demand of daily commuting in the the vicinity of Tallinn.   |
| Existence of exporting-importing industry and logistics operators | There are various companies on or in the immediate vicinity of the corridor that need to import and export raw materials / goods (eg Rae Industrial Park, Paldiski Industrial Park (pumped hydroelectric power plant, hydrogen production), Ida-Virumaa industrial companies).  |
| Corridor transit potential  | The corridor has the potential to serve east-west transit goods (eg container traffic by rail; Russian and Chinese transit goods).  |
| The infrastructure of the ports is at a good level                | The ports in the value chain have a strong business background (eg in the Port of Paldiski) and investments<br>are constantly being made in development work. Prerequisites for multimodality have been created in<br>several ports (Paldiski South Harbor, Paldiski North Harbor, Muuga, Sillamäe) most of the ports can be served<br>by both road and rail transport. |
| Tourism potential   | St. Petersburg-Tallinn, Russian tourist from St. Petersburg-Ida-Virumaa, Swedish tourist from Paldiski-Tallinn.<br>Strong Far-East tourism potential as anchoring point for Baltic Sea Area.  |
| Long-term experience  | Ports have experience in transporting complex goods. Experience with tourists. Openness and flexibility.  |



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### **Solutions**



| BOTTLENECK   | SOLUTION   |
|--|--|
| Low capacity of Narva border crossing                      | <ul> <li>Political intervention</li> <li>Border control in the bus / train</li> <li>Expansion of the Narva platform area</li> <li>Implementation of integrated digital solutions</li> </ul>  |
| The existing railway infrastructure is not sufficient      | <ul> <li>Tallinn ring railway</li> <li>Coordination of different railway infrastructures</li> <li>Construction of two pairs of rails on the most critical sections</li> <li>Expansion of the Narva platform area</li> <li>Railway electrification (Tallinn-Narva)</li> </ul>   |
| Need to speed up the digitalisation                        | Supply chain management solutions  |
| Road infrastructure needs upgrading                        | <ul> <li>Building 2+2, 2+1 on more critical sections</li> <li>For future disturbing investments, further away from settlements</li> <li>Improving cooperation between different parties, organizing steering groups etc</li> <li>Admission of 25 m car trains to roads. Later perspective Allowing 34-meter (tractor and 2 Euro trailers) car trains on the road - at the same time it requires suitable infrastructure</li> </ul> |
| Impossibility to increase capacity in<br>some of the ports | Better cooperation between ports   |







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